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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,674	03/21/2002	Masao Akiyoshi	401612	4820

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EXAMINER

MAYO III, WILLIAM H

ART UNIT PAPER NUMBER

2831

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,674

Applicant(s)

AKIYOSHI ET AL.

Examiner

William H. Mayo III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 24 June 2003 is: a) ☐ approved b) ☒ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The proposed drawing correction filed on June 24, 2002 has been disapproved because it is not in the form of a pen-and-ink sketch showing changes in red ink or with the changes otherwise highlighted. See MPEP § 608.02(v).
2. The drawings are objected to because Figure 1 lacks the proper cross hatching which indicates the type of materials which may be in an invention. Specifically, the cross hatching to indicate the conductor and insulation materials is incorrect. The applicant should refer to MPEP Section 608.02 for the proper cross hatching of materials.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimojima et al (Pat Num 6,362,447, herein referred to as Shimojima) in view of Applicant's Own Admission of Prior Art (herein referred to as AOAPA). Shimojima discloses an electrode for wire (Figs 1-2) electrical discharge machining (abstract). Specifically, with respect to claim 1, Shimojima discloses an electrode for wire (3) comprising an electrically conductive core (1), a first coating of Cu-Zn intermetallic compound in other than an alpha phase surrounding the core (1, Col 2, lines 43-46). With respect to claim 2, Shimojima discloses an electrode for wire (3) has a first coating comprising Cu-Zn alloy in a beta phase (Col 2, lines 43-46). With respect to claims 3-4, Shimojima disclose the core wire (1) comprises Cu-Zr alloy (Col 2, lines 43-46). With respect to claims 5-6, Shimojima disclose the core wire (1) comprises Cu-Zn alloy (Col 6, lines 30-35).

However, Shimojima doesn't necessarily disclose the wire having a second layer in an alpha phase wherein the second coating layer has a thickness of 5-15 μ (claim 1).

AOAPA teaches, under the heading "Background Art", a known electrode wire (Fig 8) that has an innermost layer and an outermost layer consisting of only an alpha phase wherein the alpha phase guarantees superior workability and produces a wire without any cracks or breaks during a cold wire drawing (Fig 8, Pages 1-2, lines 10-27 & 1-5, respectively). Specifically, with respect to claim 1, AOAPA teaches an electrode

wire (Fig 8) having a dual layer (Fig 8), wherein the outermost layer (Fig 8) has an alpha phase and a thickness of 15 μ m (Fig 8, Pages 1-2, lines 10-27 & 1-5, respectively).

With respect to claim 1, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the wire electrode of Shimojima to comprise the additional layer configuration as taught by AOAPA because AOAPA teaches that such a configuration provides an electrode wire (Figs 1-2) with an alpha phase wherein the alpha phase guarantees superior workability and produces a wire without any cracks or breaks during a cold wire drawing (Fig 8, Pages 1-2, lines 10-27 & 1-5, respectively).

Response to Arguments

6. Applicant's arguments filed June 24, 2003 have been fully considered but they are not persuasive. The applicant argues the following:

- A) Shimojima doesn't disclose or suggest the Cu-Zn coating being absent an alpha phase.
- B) Kuroda doesn't disclose or suggest a second coating on the first coating in the alpha phase.
- C) Shimojima actually teaches against and excludes including an outer coating of the beta phase of the alloy.

With respect to arguments A & C, the examiner respectfully traverses. While the applicant is convinced that Shimojima doesn't necessarily disclose the CU-Zn alloy coating being solely beta phase, the examiner respectfully disagrees. Shimojima clearly

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teaches that the Cu-Zn alloy coating may be solely a beta phase. Specifically, in Column 4, lines 54-57, Shimojima clearly discloses

"The Cu-Zn alloy is manufactured by an ordinary extrusion process, that is formed of mixing composition of alpha phases and beta phases or a single phase composition of only beta phase."

Therefore, Shimojima clearly teaches that the Cu-Zn alloy may be a single phase composition of only beta phase.

With respect to argument B, this argument is moot, in view of a new grounds of rejection.

Conclusion

7. Based on the new rejection, this action is non-final.

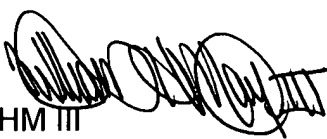
Communication

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (703) 306-9061. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308-3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3431 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



WHM III
August 10, 2003